

Notice of Allowability

Application No.

09/990,060

Applicant(s)

GREDONE ET AL.

Examiner

Nitin C. Patel

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 22 April 2005.
2. ☒ The allowed claim(s) is/are 1-45.
3. ☒ The drawings filed on 07 March 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 5/17/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This is in responsive to amendment filed on 22 April 2005.
2. Claims 1 – 45 are allowed.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Louis Weinstein [reg. # 20477] on 17 May 2005.

The application has been amended as follows:

4. Please amend the claims 16, and 34 as follows:

In claim 16:

On line 2, after the word "include a" delete the word ---RX---

On line 2, after the word "include a" delete the word ---TX---

In claim 34:

On line 3, after the word "bus" inserts the word---interface---

Reasons For Allowance

5. The following is an examiner's statement of reasons for allowance: Applicant's claimed invention distinguishes over the prior art for following reasons.

The independent claims 1, 4, and 7 are allowable over the art of record and none of the references either alone or in combination, discloses or renders obvious a hybrid

Art Unit: 2116

serial to parallel interface and method for transferring data as described in claimed invention by demultiplexing data block into a plurality of nibbles, each nibble having a parallel to serial converter, and a line for transferring that nibble serial data and a serial to parallel converter for converting the nibble serial data to recover that nibble and data block reconstruction device for combining the recovered nibbles into the data block.

The independent claims 10, 17, 18, 25, 26, and 33 are allowable over the art of record and none of the references either alone or in combination, discloses or renders obvious a hybrid serial to parallel interface and method for transferring data from a first node to second node as described in claimed invention with a demultiplexing data block into m sets of n bits and for adding a start bit to each of the m sets, the m start bits collectively representing a particular mathematical function or destination for each of the m sets, a separate line for transferring that set of the m sets from first node to the second node and a data block reconstruction device for receiving the m sets, for combining the m sets into the data block and for utilizing the m sets in accordance with the m start bits.

The independent claim 34 is allowable over the art of record and none of the references either alone or in combination, discloses or renders obvious a hybrid serial to parallel bus interface for use in a synchronous system having an associated clock and the interface as described in claimed invention with a demultiplexing data block into plurality of nibbles, an even and odd set of parallel to serial converters receiving the nibbles synchronous with a clock rate of the clock, and a first set of i multiplexers for transferring the even parallel to serial converters set serial data on positive edge of

Art Unit: 2116

clock over i lines and odd parallel to serial set serial data on negative edge of the clock over i lines, a second set of i demultiplexers for receiving the even and odd transferred serial data and sending the even received serial data to an even buffer and odd serial data to an odd buffer; an even and odd set of serial to parallel converters for converting and outputting even and odd parallel data synchronous with the clock and a data block reconstruction device for receiving, combining the m sets into the data block in accordance with the m start bits.

The independent claim 37 is allowable over the prior art of record because none of the references either alone or in combination, discloses or renders obvious a method for determining number of i -bus connections required to transfer block data by determining a maximum latency allowed, and determining a minimum number of connection required to transfer the block data with maximum latency.

The independent claim 40 is allowable over the art of record and none of the references either alone or in combination, discloses or renders obvious a bi-directional serial to parallel interface as described in claimed invention with a plurality of lines numbering less than a number of bits for transferring and with a capability of demultiplexing data block into plurality of first nibbles numbering a same number as plurality of lines, and the second node sending second set of data blocks to the first node over plurality of lines.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2116

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin C. Patel whose telephone number is 571-272-3675. The examiner can normally be reached on 6:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nitin C. Patel
May 9, 2005


LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100